

Amendment

Amendment to the Claims

1. (withdrawn) A bipolar transistor (BJT) with reduced base-collector capacitance comprising
an extrinsic base, and
a lateral trench beneath the extrinsic base.
2. (withdrawn) A BJT of claim 1, wherein the trench is filled with air.
3. (withdrawn) A BJT of claim 1, wherein the trench is filled with an insulator.
4. (withdrawn) A BJT of claim 3, wherein the insulator is a high step coverable insulating material.
5. (withdrawn) A BJT of claim 4 wherein the insulator is PETEOS.
6. (withdrawn) A BJT of claim 1, wherein the trench has a <110> orientation.
7. (withdrawn) A BJT of claim 6, wherein the trench is formed in a <100> silicon wafer.
8. (original) A method of forming a laterally extending trench in a semiconductor material underneath an extrinsic base of a BJT, comprising
choosing a predetermined crystal orientation,
etching a vertically extending STI region next to the extrinsic base,
and
using an anisotropic etchant to etch the laterally extending trench to extend laterally from the STI.
9. (original) A method of claim 8, wherein choosing the crystal orientation includes choosing a wafer with a <100> orientation.
10. (original) A method of claim 8, wherein the choosing of the crystal orientation includes choosing a lateral trench direction that is in the <110> direction.
11. (original) A method of claim 10, wherein the semiconductor material is silicon.

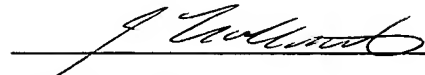
12. (original) A method of claim 11, wherein the etchant is a wet anisotropic silicon etchant.
13. (original) A method of claim 12, wherein the etchant includes KOH.
14. (original) A method of claim 13, wherein the etchant further includes alcohol and water.
15. (original) A method of claim 12, wherein the etchant includes TMAH.

Election

Applicant elects group II (claims 8-15) drawn to a method of making a semiconductor device.
Claims 1-7 have been withdrawn.

Respectfully Submitted,

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